

BEFORE THE  
POSTAL RATE COMMISSION  
WASHINGTON, D.C. 20268-0001

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OFFICE OF THE SECRETARY

POSTAL RATE AND FEE CHANGES, 1997

Docket No. R97-1

RESPONSE OF UNITED STATES POSTAL SERVICE  
WITNESS DANIEL TO INTERROGATORIES OF  
UNITED PARCEL SERVICE  
(UPS/USPS-T29-1-10 AND 12-16)

The United States Postal Service hereby provides responses of witness Daniel to the following interrogatories of United Parcel Service: UPS/USPS-T29-1-10 and 12-16, filed on August 4, 1997. An objection to interrogatory UPS/USPS-T29-11 was filed on August 14, 1997.

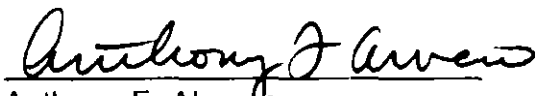
Each interrogatory is stated verbatim and is followed by the response.

Respectfully submitted,

UNITED STATES POSTAL SERVICE

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**RESPONSE OF U.S. POSTAL SERVICE WITNESS DANIEL TO  
INTERROGATORIES OF UNITED PARCEL SERVICE**

**UPS/USPS-T29-1.** Please refer to page 5, Appendix V. Explain the difference between Inter-BMC Secondary Scheme 1 and Secondary Scheme 2. Please also explain what factors (mail volume, parcel characteristics, machine availability, etc.) determine which of the sort routines parcels undergo.

**RESPONSE:**

Since sortation requires more separations than the number of available bins on the machines, different schemes, or sort plans, with different ZIP Code ranges in the BMCs service area, are run on the same type of parcel sorting machine. Therefore, the two secondary schemes represent different ZIP Code groupings for a BMC service area. The destination ZIP Code of the parcel determines the sort routine on which the parcel will be finalized. As shown on page 5 of Appendix V, for parcels sorted first on primary and requiring secondary sortation, the primary sort is able to sort parcels to the appropriate secondary scheme. Parcels sent directly to secondary, however, are not necessarily presorted according to scheme.

**RESPONSE OF U.S. POSTAL SERVICE WITNESS DANIEL TO  
INTERROGATORIES OF UNITED PARCEL SERVICE**

**UPS/USPS-T29-2.** Please refer to your testimony at page 15, footnote 51.

(a) Please explain on what basis you assume that "50 percent of the parcels [at destinating BMCs] are inducted directly to the secondary."

(b) Please explain on what basis you assume that "50 percent of the parcels finalized on the secondary PSM are sorted to the 5-Digit level on the appropriate scheme and that the remaining 50 percent must be directed to the other scheme."

**RESPONSE:**

a. This assumption was provided to me from operations. The assumption that 50 percent of the parcels at the destinating BMC are inducted directly to the secondary is reasonable. First, not all BMCs have direct-to-secondary induction capability. Some BMCs can only induct into the secondary from the floor while others can induct directly to the secondary from the dock, or both. Whether the mail is in containerized unit loads or just bedloaded affects induction capability.

Second, there can be capacity constraints on the secondary so that inducting the mail on the primary, where sorting to the appropriate secondary scheme can take place, makes more sense. Some BMCs also do not have crossover capability such that mail inducted on one scheme can be routed, or crossed over, to the other secondary scheme or back to the primary.

Thus, the BMCs that have the capability and the capacity prefer to induct destinating, barcoded parcels directly to the secondary as much as possible. This is not always possible, however.

The model is not very sensitive to this assumption, in any event. For example, assuming 100 percent of the parcels are inducted directly to the secondary results in 1.59 parcel sorting machine sorts at a modeled cost of 3.6 cents per sort for a total of 5.72 cents. Assuming 0 percent of parcels are inducted directly to the secondary results in 1.83 parcel sorting machine sorts at a modeled cost of 3.6 cents per sort for a total of 6.72 cents. Assuming 50 percent of the parcels are inducted directly to the secondary results in 1.71 parcel sorting machine sorts at 3.6 cents per sort for a total of

**RESPONSE OF U.S. POSTAL SERVICE WITNESS DANIEL TO  
INTERROGATORIES OF UNITED PARCEL SERVICE**

6.16 cents. Thus, the variation is within about a half a cent (0.44 cents and 0.56 cents respectively.)

- b. This assumption was provided to me by operations. The assumption that 50 percent of the parcels finalized on the secondary PSM are sorted to the 5-Digit level on the appropriate scheme and that the remaining 50 percent must be directed to the other scheme is reasonable because the schemes are usually designed to be balanced. The schemes try to even out the density to balance staffing. Therefore, the volume of parcels sorted on the first scheme should be about equal to the volume sorted on the second scheme and the probability of a parcel (that is not otherwise finalized on primary) designating on either scheme should be equal or 50 percent.

**RESPONSE OF U.S. POSTAL SERVICE WITNESS DANIEL TO  
INTERROGATORIES OF UNITED PARCEL SERVICE**

**UPS/USPS-T29-3.**

(a) Please confirm that Appendix V, page 16, cites USPS LR-H-131 as the source for the percentages used for "Mail Flow Arrival and Dispatch Profiles" for Machinable and Non-Machinable Parcels. If not confirmed, please explain.

(b) Please explain exactly from where in USPS LR-H-131 the percentages for Machinable Parcels are taken.

**RESPONSE:**

a. Library Reference H-131 is cited as the source for the Arrival Profile of machinable and nonmachinable parcel post, but Library Reference H-132 is cited as the source for the Dispatch profile for machinable and nonmachinable parcels. See Appendix V, page 16, notes 1 and 4.

b. The percentages for machinable parcels are based on the figures from page 26 of USPS LR-H-131 entitled "Table 1: Christensen Associates' BMC Parcel Survey Container Profile By Entry Origin, Percent of Parcel Post Pieces by Container Type." The table in the middle of the page is for machinable pieces. Since the survey did not distinguish between bedloaded loose pieces and bedloaded sacks or between pieces loose in OTRs and sacked in OTRs, my testimony uses the ratio in USPS Library Reference H-132 to adjust for this. Since approximately 40 percent of bedloaded items arriving at BMCs were sacks as seen in Attachment 2 Data, page 277, of Library Reference H-132,<sup>1</sup> my testimony takes 40 percent of the 11.3 percent bedloaded to determine the percent of bedloaded sacks (4.5 percent) and the percent of bedloaded loose parcels (6.8 percent). Also using the roughly 70/30 split of loose and sacked parcels arriving at BMCs in OTRs seen in Attachment 2 Data, page 277 of LR-H-132, my testimony takes 70 percent of 62.6 percent OTR to determine the percent loose in OTRs (43.8 percent) and 30 percent of 62.6 percent to determine sacks in OTRs (18.8 percent). The remainder, 24.6 percent, is the percent arriving in hampers/APC/OWC.

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<sup>1</sup> The arrival profile in USPS Library Reference H-132 is used only for the sack split and not the entire arrival profile because, unlike USPS LR-H-131, it is not subclass specific.

**RESPONSE OF U.S. POSTAL SERVICE WITNESS DANIEL TO  
INTERROGATORIES OF UNITED PARCEL SERVICE**

**UPS/USPS-T29-4.** Under the Postal Service's proposal, would the non-machinable surcharge apply to non-machinable parcels which qualify for the OBMC discount? If not, why not?

**RESPONSE:**

My testimony is limited to costing issues, and does not cover pricing issues; however, it is my understanding that the nonmachinable surcharge applies to nonmachinable parcels that qualify for the OBMC discount.

**RESPONSE OF U.S. POSTAL SERVICE WITNESS DANIEL TO  
INTERROGATORIES OF UNITED PARCEL SERVICE**

**UPS/USPS-T29-5.** Why doesn't some non-machinable surcharge apply to intra-BMC and DBMC shipments?

**RESPONSE:**

Please see the response to UPS/USPS-T37-7.

**RESPONSE OF U.S. POSTAL SERVICE WITNESS DANIEL TO  
INTERROGATORIES OF UNITED PARCEL SERVICE**

**UPS/USPS-T29-6.** Please refer to USPS-T-16, Appendix I, page 11 of 13, and confirm that Inter-SCF costs are included in Parcel Post transportation costs. If not confirmed, please explain.

**RESPONSE:**

Confirmed.



**RESPONSE OF U.S. POSTAL SERVICE WITNESS DANIEL TO  
INTERROGATORIES OF UNITED PARCEL SERVICE**

**UPS/USPS-T29-7.** Please confirm that your mail-flow models in USPS-T-29, Appendix V, pages 1, 5 and 6, assume that no Parcel Post volume is Inter-SCF. If not confirmed, please explain.

**RESPONSE:**

The models in my testimony do not include parcels moving from the origin P&DC directly to the destination P&DC, nor should my testimony model the case where parcels are on trucks that stop at several P&DCs on the way to or from a BMC. The parcels are not unloaded at P&DCs while in-route to or from the BMC.

**RESPONSE OF U.S. POSTAL SERVICE WITNESS DANIEL TO  
INTERROGATORIES OF UNITED PARCEL SERVICE**

**UPS/USPS-T29-8.** What percentage of Parcel Post mail volume is Inter-SCF?

**RESPONSE:**

To the best of my knowledge, that information is not available.

**RESPONSE OF U.S. POSTAL SERVICE WITNESS DANIEL TO  
INTERROGATORIES OF UNITED PARCEL SERVICE**

**UPS/USPS-T29-9.** What percentage of Parcel Post mail is not handled by a BMC?

**RESPONSE:**

To the best of my knowledge, this information is not available.

**RESPONSE OF U.S. POSTAL SERVICE WITNESS DANIEL TO  
INTERROGATORIES OF UNITED PARCEL SERVICE**

**UPS/USPS-T29-10.** Please confirm that by omitting Parcel Post volume that is not handled at a BMC, you overstate (a) the barcode discount and (b) the Inter-BMC presort discount. If not confirmed, please explain.

**RESPONSE:**

- a) *I cannot confirm that by omitting Parcel Post volume that is not handled at a BMC, the barcode discount is overstated. Although the modeled cost difference would be lower if non-BMC volume were included, the inclusion of non-BMC volume would tend to increase nonmodel cost factor. These factors counterbalance each other; consequently, the barcode cost avoidance is not necessarily overstated.*
- b) *My testimony does not estimate the BMC presort cost avoidance; consequently, I have not overstated it..*

**RESPONSE OF U.S. POSTAL SERVICE WITNESS DANIEL TO  
INTERROGATORIES OF UNITED PARCEL SERVICE**

**UPS/USPS-T29-11.** Please provide the results to date (costs, revenues, volumes, etc.) of the Priority Mail pre-barcoding experiment that is the subject of Docket No. MC 96-1.

**RESPONSE:**

An objection to this interrogatory has been filed.

**RESPONSE OF U.S. POSTAL SERVICE WITNESS DANIEL TO  
INTERROGATORIES OF UNITED PARCEL SERVICE**

**UPS/USPS-T29-12.** Please refer to USPS LR-H-131.

(a) Discuss the choice of June as the survey month, including but not limited to whether other months were considered and, if so, why they were not selected.

(b) Please discuss the decision to select a single month for the survey rather than sampling over several months.

(c) Please confirm that all nine sites included in the survey were sampled on the same days of the week (i.e., all sites were surveyed on Monday, Tuesday, and Friday of the survey week). If you cannot confirm, discuss the impact on the survey of differences in mail arrivals on different days.

(d) Please confirm that mail flow for a given day of the week into all BMCs is equivalent. (For example, is a typical Monday in Chicago equivalent to a typical Monday in Los Angeles?) If you cannot confirm, please further discuss the selection of the day of the week on which each survey was performed and how the selection of the day(s) might have affected the survey results.

(e) Please confirm that mail flow at BMCs does not change over the course of a month such that surveying one site in the early part of a month is equivalent to surveying another site in the later part of a month. If you cannot confirm, please discuss how mail flow is affected by monthly cycles and how those cycles might have affected the survey results.

(f) What procedures were followed to insure that the different teams sent to perform the surveys at the various BMCs were equally trained and skilled at collecting the necessary data? Please describe these procedures.

(g) How many BMCs are classified as large, how many are classified as medium, and how many are classified as small? Identify what BMCs are in each group.

(h) Please confirm that only two BMCs are classified as large and further confirm that both were surveyed.

(i) Please confirm that no sensitivity analysis was performed regarding the over-sampling of the large BMCs. If you cannot confirm, please provide and discuss the results of the sensitivity analysis performed.

(j) Please discuss whether there would be a significant difference in the results of the survey (including the large BMCs) as performed as compared to an analysis of large BMCs alone. Discuss the statistical ramifications of including the population (non-random) of large BMCs but only a sample of small and medium BMCs.

(k) Please confirm that no consideration was given to sampling all BMCs. If you cannot confirm, please discuss the decision to sample only nine.

**RESPONSE:**

(a) June 1996 was selected as the survey month for the BMC Parcel Survey because of time constraints. It was the only time that the survey could be done in order that

**RESPONSE OF U.S. POSTAL SERVICE WITNESS DANIEL TO  
INTERROGATORIES OF UNITED PARCEL SERVICE**

results could be produced within the time frame needed for the subsequent analyses on which these results were based.

- (b) The sample could not be drawn over several months because of time constraints given for the survey (see response to (a) above).
- (c) The survey sites were not sampled on the same days of the week. The days of the week that sample pieces were drawn were chosen so that different weekdays were sampled across the survey sites. For example, sample pieces were selected at one site on Monday, Tuesday, and Wednesday, at another site on Tuesday, Wednesday, and Friday, and at another site on Tuesday, Wednesday, and Thursday. Different days of the week were sampled across the sites to try to account for any possible bias in results that might have resulted by selecting all sample pieces on the same days of the week. We had no prior knowledge that there are definite patterns in mail flows across days of the week for BMCs, but by sampling on different weekdays across the survey sites, we attempted to control for any *potential* bias, and to capture mail flows on all weekdays. Sample inbound pieces could not be selected on all weekdays at each site, due to time and budget constraints. Since it is not certain if patterns in mail arrival flows exist, and what these patterns might be, no conclusions can be drawn on the impact any such patterns, if they exist, would have on the survey results.
- (d) We cannot confirm or deny that the mail flows into all BMCs for a given day of the week are equivalent. That is, there are no data available that would show that a typical Monday in Chicago is or is not equivalent to a typical Monday in Los Angeles, or even that there is such a thing as a typical Monday at any particular BMC. Since we selected sample pieces across all weekdays across sample BMCs, we attempted to control for any *potential* biases that would have resulted if mail flows differed by day of the week across the sample sites. Since it is not certain if such patterns in mail flows exist, and what these patterns are, we cannot say what impact any such patterns, if they exist, would have on the survey results.

**RESPONSE OF U.S. POSTAL SERVICE WITNESS DANIEL TO  
INTERROGATORIES OF UNITED PARCEL SERVICE**

- (e) We cannot confirm or deny the statement that mail flows at BMCs do not change over the course of a month such that surveying one site in the early part of a month is equivalent to surveying another site in the later part of a month, given the data currently available. Since it is not certain if such cycles exist, and what these cycles are, we cannot say what impact any such cycles, if they exist, would have on the survey results.
- (f) As stated on page 6 of Library Reference H-131, all data collectors were trained on *data collection techniques at the same training session*. In addition, team leaders at each sample site kept in contact with each other and with the project leaders during the sampling phase. In this way, when unanticipated questions or problems arose, all team leaders were aware of the question or problem, and its solution. By training all data collectors at the same time, and staying in contact with all data collection teams during the data collection phase, we made sure that results were consistent across all data collection teams. Team leaders were chosen on the basis of experience in collecting postal data, although almost all other data collectors involved in this project had experience collecting data for other surveys done for the Postal Service. In almost all cases, each data collector worked at more than one sample site over the course of the three-week survey.
- (g) The 21 BMCs, by "size" category, are given in the table below.

<b><u>Large</u></b>	<b><u>Medium</u></b>	<b><u>Small</u></b>
Chicago New Jersey	Dallas Los Angeles Philadelphia Pittsburgh Springfield	Atlanta Cincinnati Denver Des Moines Detroit Greensboro Jacksonville Kansas City Memphis Minneapolis St. Louis San Francisco Seattle Washington, DC



**RESPONSE OF U.S. POSTAL SERVICE WITNESS DANIEL TO  
INTERROGATORIES OF UNITED PARCEL SERVICE**

- (h) As shown in (g), there are only two BMCs that are classified as "large." Both of these BMCs were selected for this survey, as shown by the list of survey sites given on page 6 of the library reference. As discussed in the library reference, the "size" stratification for BMCs is a common nomenclature used to distinguish these facilities, where "size" refers to characteristics such as plant and dock layouts. It is our understanding that the two "large" BMCs are put together in that category, but they are considered unique among BMCs (in their plant and dock layouts), that is, different from all other BMCs and from each other, even though commonly put together in the "large" strata. Since these two BMCs are considered unique, we included both in the survey. That is, choosing both "large" BMCs was equivalent to randomly selecting sites from each of two "unique" strata.
- (i) Sensitivity analysis was not performed on the survey results, nor was it considered necessary, since the "large" BMCs were not really over sampled. As stated in subpart (h), choosing the two "large" BMCs was equivalent to randomly selecting sites from each of two "unique" strata. The results reported in the library reference were national estimates, where overall estimates were the sum of weighted BMC-specific results, where the weights reflected the different sampling rates across the strata. The roll-up process from individual sample pieces to national estimates is described in Section C of the library reference (pages 9-10), and shown in Attachment 3, which was inadvertently omitted from the library reference and filed on August 15, 1997.
- (j) No analysis has been performed on the results for any subset of the population of BMCs. Since national estimates of parcel characteristics were needed for the subsequent analysis on which the results were based, only national estimates (weighted averages across all strata) were calculated. As discussed in subpart (h), a random sample of each unique strata was selected, and national estimates calculated as weighted averages across all strata. As such, standard statistical methods were used to develop the national averages reported in Library Reference H-131.

**RESPONSE OF U.S. POSTAL SERVICE WITNESS DANIEL TO  
INTERROGATORIES OF UNITED PARCEL SERVICE**

- (k) The survey was conducted at a sample of BMCs, rather than at all BMCs, because time constraints for the project forbade a census being taken. In addition, conducting the survey at all BMCs would have been prohibitively expensive. The sample sites were chosen randomly, except for those sites excluded because significant construction at those plants at the time the survey was conducted would make sampling difficult. Since no sites were excluded from being selected as sample sites for any reason related to the information being collected in the survey, the results from this sample of nine BMCs, properly rolled up and weighted across strata, provide results representative of the universe of parcels arriving at BMCs.

**RESPONSE OF U.S. POSTAL SERVICE WITNESS DANIEL TO  
INTERROGATORIES OF UNITED PARCEL SERVICE**

**UPS/USPS-T29-13.** Please confirm that at the bottom of page 2 of 17, Appendix V, the formula for Column [6] should read:  $(\text{Column [1]} * \text{Column [5]})$  and not  $(\text{Column [1]} * \text{Column [5]} / 10,000)$ . If not confirmed, please explain.

**RESPONSE:**

Confirmed.

## RESPONSE OF U.S. POSTAL SERVICE WITNESS DANIEL TO INTERROGATORIES OF UNITED PARCEL SERVICE

**UPS/USPS-T29-14.** Please identify the source of the data in Appendix V, page 2 of 17, Column 1.

### RESPONSE:

The source of data in Appendix V, page 2 of 17 Column 1 can be found in two places. The first is Appendix V, page 16 of 17. The second source is the diagram labeled 'Machinable Nonpresort Inter-BMC Mail Flow' in Appendix V, on page 1 of 17. The specific source of each item is described in more detail in the table below. In the table, the page numbers refer to USPS-T-29 Appendix V.

<b>Origin SCF</b>	
Unload Containers	All mail pieces are unloaded once (BMC unloading profile is used as a proxy)
Bedload Sacks	Mirrors the arrival profile at OBMCs. See page 16, machinable parcels arriving in bedloaded sacks at BMC.
Bedload Loose	Mirrors the arrival profile at OBMCs. See page 16, machinable parcels arriving bedloaded at BMC
Load Sacks in OTRs	Mirrors the arrival profile at OBMCs. See page 16, machinable parcels arriving sacked in OTRs at BMC
Load Loose in OTRs	Mirrors the arrival profile at OBMCs. See page 16, machinable parcels arriving loose in OTRs at BMC
Load OWC	Mirrors the arrival profile at OBMCs. See page 16, machinable parcels arriving in hampers/APC/OWC (OWC) at BMC
Load Pallets	Mirrors the arrival profile at OBMCs. See page 16, machinable parcels arriving palletized at BMC
<b>Origin BMC</b>	
Unload Bedload Sack	Page 16, machinable parcels arriving in bedloaded sacks at BMC
Bedload Loose	Page 16, machinable parcels arriving bedloaded at BMC.
Unload Sacks in OTR	Page 16, machinable parcels arriving sacked in OTRs at BMC
Unload loose in OTR	Page 16, machinable parcels arriving loose in OTRs at BMC
Unload Other Wheeled Cont.	Page 16, machinable parcels arriving in hampers/APC/OWC (OWC) at BMC
Unload Pallet	Page 16, machinable parcels arriving palletized at BMC
Dump OTR of sacks	Same as machinable parcels arriving sacked in OTRs at BMC, page 16
Dump OTR of loose	Same as machinable parcels arriving loose in OTRs at BMC, page 16
Dump Other Wheeled Cont.	Same as machinable parcels arriving in hampers/APC/OWC (OWC) at BMC, page 16
Dump Pallet	Same as machinable parcels arriving palletized at BMC, page 16
Sack Sorter	The sum of bedloaded sacked and sacked in OTR.
Sack Shake out	The sum of bedloaded sacked and sacked in OTR
O. Primary (scan)	Page 1. All parcels incur a primary sort
Sweep Runouts P Pak -	Same as above. All origin Inter-BMC parcels run out into Postal Paks and must be swept, Page 1

**RESPONSE OF U.S. POSTAL SERVICE WITNESS DANIEL TO  
INTERROGATORIES OF UNITED PARCEL SERVICE**

Load Postal Pak -	Same as above. All origin Inter-BMC parcels run out into Postal Paks and must be loaded, Page 1
<b>Destination BMC</b>	
Unload Postal Pak	Page 1 All inter-BMC parcels arrive at the DBMC in Postal Paks and must be unloaded
Dump Postal Pak	Page 1 All inter-BMC parcels arrive at the DBMC in Postal Paks and must be dumped
D. Primary (scan) -	Page 16, and diagrams on pages 1 and 5. First, destinating BMCs feed 50 percent of barcoded destinating Inter-BMC parcels to the primary parcel sorting machine. The the remaining 50 percent are sent directly to secondary. Second, 17 percent of parcels are sorted to the 5-digit level by the primary parcel sorting machine. This means 17 percent of the 50 percent (.085) directed to the secondary will be sent back to the primary. Therefore, the handling is .585 ( $.585 = .50 + .085$ ).
Secondary (scan)	Page 16, and diagrams on page 1 and 5 First, 50 percent of the Inter-BMC parcels received by the DBMC are first sent to the primary parcel machine Since 17 percent of this is finalized on the primary, 41.5 percent (83 percent of 50) is sent to the secondary, 20.75 percent (50 percent of 41.5) to scheme 3 and 20.75 percent to secondary scheme 4. The other 50 percent of Inter-BMC parcels received by DBMC is inducted unfiltered directly to a secondary scheme (3). Since 17 percent is sent back to the primary for finalization, there is a 50 percent chance that the remaining 41.5 percent will be finalized on scheme 3. Likewise, the other 50 percent of 41.5 percent (20.75) will need to be sorted on secondary scheme 4. Therefore, the total number of mail handlings is 1.1225. ( $1.1225 = .415 + .50 + .2075$ )
Sweep Runouts OTR	The sum of bedloaded sacked and sacked in OTR dispatched to service area.
Sack and Tie	The sum of loose in OTRs and in Hampers/OWC dispatched to service area.
Bedload Sacks	Page 16, machinable parcels dispatched in bedloaded sacks to service area
Load OTRs w/sacks	Page 16 machinable parcels dispatched sacked to OTRs in Service area
Load OTRs w/loose	Page 16, machinable parcels dispatched loose in OTRs to Service Areas
Load Hampers/OWC	Page 16, machinable parcels dispatched in hampers/APC/ OWC ( OWC) to Service area
<b>Destination SCF</b>	
Unload Bedload Sacks	Page 1. Since 23.84 percent of mail is in bedload sacks leaving the BMC and 12 percent (page 16) bypasses the DSCF, 20.91 percent (23.84 times 88 percent) is unloaded bedload sacks at the DSCF.
Unload Sacks in OTR	Page 1. Since 2.89 percent of mail is sacked in OTRs leaving the BMC and 12 percent (page 16) bypasses the DSCF, 2.53 percent (2.89 times 88 percent) is unloaded sacks in OTRs at the DSCF
Unload loose in OTR	Page 1. Since 60.25 percent of mail is loose in OTRs leaving the BMC and 12 percent (page 16) bypasses the DSCF, 52.84 percent (60.25 times 88 percent) is unloaded loose in OTRs at the DSCF
Unload OWC	Page 1 Since 13.02 percent of mail is loose in OTRs leaving the BMC and 12 percent (page 16) bypasses the DSCF, 11.42 percent (13.02 times 88 percent) is unloaded loose in OTRs at the DSCF.
Crossdock Bedload Sacks	Page 1 Same as unloaded bedload sacks, since it is all crossdocked.
Crossdock Sacks in OTR	Page 1. Same as unload sacks in OTR, since it is all sacks in OTR that

**RESPONSE OF U.S. POSTAL SERVICE WITNESS DANIEL TO  
INTERROGATORIES OF UNITED PARCEL SERVICE**

	are unloaded are crossdocked.
Crossdock loose in OTR	Page 1. Same as unload loose in OTR, since it is all unloaded loose in OTR is crossdocked.
Crossdock OWC	Page 1. Same as unload OWC, since it is all unloaded OWC is crossdocked.
Bedload Sacks	Page 1 Sum of crossdock bedload sacks and crossdock sacks in OTR
Load OTRs w/loose	Page 1. Same as crossdocked loose in OTR
Load Hampers/OWC	Page 1. Same as crossdocked hampers/OWC
<b>Destination Delivery Unit</b>	
Unload Bedload Sacks	Page 16 Sum of machinable parcels loaded dispatched in bedloaded sacks to service area and machinable parcels dispatched in OTRs to service areas from DBMC.
Unload loose in OTR	Page 16. Machinable parcels dispatched loose in OTRs to Service Area from DBMC.
Unload OWC	Page 16. Machinable parcels dispatched in hampers/APC/ OWC (OWC) to Service Area from DBMC.
Dump Sacks	Page 16. Same as the percent of bedload sacks unloaded at DDU All sacks unloaded have to be dumped.

**RESPONSE OF U.S. POSTAL SERVICE WITNESS DANIEL TO  
INTERROGATORIES OF UNITED PARCEL SERVICE**

**UPS/USPS-T29-15.** Please refer to Appendix V, page 15 of 17, Column 1.

(a) Please confirm that these figures are Marginal Unit per Workhour. If not confirmed, please explain.

(b) Please confirm that in your direct testimony in Docket No. MC97-2, USPS-8G, page 1 of 2, stated the same factors in Units per Workhour. If not confirmed, please explain.

(c) Please explain the reason you changed the basis of these calculations from average to marginal units per workhour. If the basis has not been changed, please explain why not.

**RESPONSE:**

(a) The figures in the first column labeled Units/Wkhr Marginal are marginal productivities. They are calculated by dividing the average productivities from USPS LR-H-132, PIRS, etc., by the variability for that operation and are used in determining volume variable unit costs.

(b) The figures in the first column on page 1 of Exhibit USPS-8G in Docket No. MC97-2, labeled Units/Wkhr were the average productivities from USPS LR-PCR-41 and PIRS. The variabilities for mail processing operations in that docket were assumed to be equal to one. Therefore, the average productivities were the same as the marginal productivities and were used to determine volume variable unit costs.

(c) The goal for all cost modeling used as a basis for rate design is to obtain volume variable costs. Prior to this case, average productivities were needed to determine volume variable costs since mail processing variabilities were assumed to be equal to one. Marginal productivities are needed to determine volume variable costs consistent with the work of USPS witnesses Degen (USPS-T-12) and Bradley (USPS-T-14). Marginal productivities differ from the average productivities for those operations with variabilities other than one.

**RESPONSE OF U.S. POSTAL SERVICE WITNESS DANIEL TO  
INTERROGATORIES OF UNITED PARCEL SERVICE**

**UPS/USPS-T29-16.** Please refer to page 20, footnote 59, of your direct testimony, which states that "[t]his testimony uses the average rate of 806 pieces per hour achieved in FY93 (before PCBS)," and Appendix V, page 15 of 17, which cites a marginal rate of 895.6 pieces per hour.

- (a) Please explain whether your testimony is using average or marginal rates.
- (b) Please explain and justify your selection of average or marginal rates.

**RESPONSE:**

(a) My testimony uses marginal productivities for determining volume variable unit costs. The *average* productivity of the parcel sorting machine in FY93 as reported by PIRS was 806. My testimony divides this *average* productivity by the variability of parcel sorting machine operations from witness Bradley (USPS-T-14) to arrive at the *marginal* productivity reported in Appendix V, p. 15, of 895.6, which was used to determine volume variable unit costs.

(b) In both cases, my testimony uses marginal productivities; however, the variabilities developed in this case are different from one. Please see my response to UPS/USPS-T29-15(c).



## DECLARATION


I, Sharon Daniel, declare under penalty of perjury that the foregoing answers are true and correct, to the best of my knowledge, information, and belief.

  
SHARON DANIEL

Dated: August 18, 1997

### CERTIFICATE OF SERVICE

I hereby certify that I have this day served the foregoing document upon all participants of record in this proceeding in accordance with section 12 of the Rules of Practice.

  
Anthony F. Alverno

475 L'Enfant Plaza West, S.W.  
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August 18, 1997